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Office Memorandum • UNITED STATES GOVERNMENT

TO : The Files, [] Task Order 3 DATE: 28 March 1957

FROM : []

SUBJECT: []

~~High-Speed Printer - Trip Report~~

1. On 15 March 1957, a trip was made to [] for the purpose of technical discussions in connection with their proposal to furnish a high-speed printer for the [] System. Present at the discussions were:

[] President
Chief Engineer
CIA

2. The discussions were opened with a thorough briefing for the contractor concerning the security of the associated equipment as well as the Agency association with the contract. [] was provided with PSQ's and Secrecy Agreements in order to request clearance on three or four additional plant personnel in preparation for possible contractual activity.

3. [] is presently designing and fabricating one unit of the high-speed, 72 character, "line at a time" printer utilizing the rotating drum technique. This printer is being designed for the National Security Agency. They propose to build a similar unit to work with our system. Due to this other project, which is primarily a communications application for the high-speed printer, [] showed by far the greatest interest in a proposal and in addition, quoted by far the lowest price for furnishing the complete system, including a dual memory, a magnetic tape buffer storage and a complete high-speed printer.

4. The printer is proposed to operate utilizing the rotating drum technique which is also characteristic of the Analex, Remington-Rand and other similar high-speed printers. There will be provided two complete storage banks to enable the printer to handle the continuous traffic requirement of the [] At the beginning of each reception period, the first 72 characters transmitted will be stored in the first storage bank. During the time that the first storage bank is being read out and that line printed, the second storage bank will be loaded with the next 72 incoming characters. The printing is done a line at a time and depends on the rotation of a drum whose periphery contains 72 groups of the alpha-numeric characters. This drum rotates at approximately three revolutions per second sending out enable pulses at each one of the 72 character positions for each of the characters of

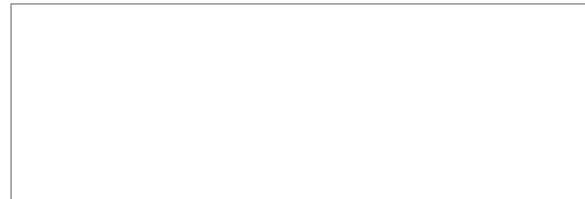
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the alpha-numeric group. When an enable pulse for a given character position and a given letter matches the character stored in that particular position of the memory, a thyatron fires and the print hammer for that position quickly flies up and strikes the paper as that character is in the printing position. Utilizing this technique with the dual storage system, a complete line of printing is accomplished with each revolution of the drum at the rate of three lines per second.

5. The remainder of the visit consisted of a tour of the Plant and inspection of existing equipment being fabricated for the National Security Agency.

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